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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,373	04/26/2001	Floribertus C.H. Mokveld	P 280261 9036US/CNT1	6577

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EXAMINER	
SALVATORE, LYNDA	
ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/842,373	MOKVELD ET AL.	
	Examiner	Art Unit	
	Lynda M Salvatore	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-14 and 16-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-14 and 16-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. Applicant's request for continuing examination (RCE), filed 09/16/03 has been entered. Claims 11,12,14,16,18,21, and 24 have been amended as requested. Applicant's amendment to claim 11 is found sufficient to overcome the 35 U.S.C. 112, second paragraph rejection as set forth in section 5 of the last Office Action. As such, this rejection is withdrawn. Despite this advance, Applicant's amendments are not found patentably distinguishable over the prior art of record and Applicant's arguments regarding the 35 U.S.C. 103(a) rejection of claims 11-14 and 16-24 as being unpatentable over Van der loo et al., WO 97/00766 in view of Motooka et al., US 4,545,950 as set forth in section 7 of the last Office Action have been fully considered, but are moot in view of a new ground (s) rejection set forth herein below.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 11-14 and 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der loo et al., WO 97/00766 in view of Nanri et al., JP 360151311 A.

The published PCT application to Van der loo et al., is directed to a ballistic-resistant moulded article comprising a compressed stack of single layers. The layers consist of unidirectionally oriented reinforcing fibers and about 30 weight percent of a plastic matrix material (Abstract). The moulded ballistic-resistant article preferably has a specific energy absorption rating of at least 120 J/kg/m^2 (Page 2, 27-28). Preferably, the reinforcing fibers are made from ultra-high molecular weight polyethylene with a denier per filament greater than or

equal to 1.5, have intrinsic viscosity of at least 5 dl/g and tensile modulus of at least 1000 cN/dtex (Page 6, 16-25). Van der loo et al., further discloses that the ballistic-resistant moulded article is preferably compressed at a pressure of at least 15 MPa. at a temperature ranging from 115 to 130°C (Page 9, lines 1-5 and Page 10, lines 7-12). The ballistic-resistant moulded material is suitable for use in helmets, bullet proof vests and panels (Abstract).

Van der loo et al., fails to disclose the preparation of the polyethylene filaments, however, the patent issued to Nanri et al., teaches a yarn having improved processing properties, frictional resistance, and wear resistance (Abstract). Said yarn is made from polyethylene having a liquid paraffin content ranging from .05 to 1.00 wt. percent (Claim 1). Nanri et al., discloses that the polyolefin yarn possesses a tensile strength of 30 (g/d) or more and an initial elasticity modulus of 800 (g/d) (Section 3, translated detailed description of the invention). Nanri et al., specifically teaches the novel polyethylene fibers have excellent resistance against friction and abrasion, have fineness, light weight, and strength properties not found in prior polyethylene fibers, which make them especially adaptable for use in clothing, ropes and fishing nets (Section 3, translated detailed description of the invention).

Therefore, motivated to provide a shaped article having high tensile strength and modulus of elasticity it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the reinforcing fibers in the ballistic-resistant moulded article of Van der loo et al., with the high tensile strength and modulus of elasticity polyethylene fiber composition taught by Nanri et al.

With regard to claim 17, the method limitation of distributing the solvent on one or more of the fiber layers before compression is not given patentable weight at this time since it is not

shown to materially effect the final product structure. In other words, it is the position of the Examiner that the method of how the solvent is provided with the shaped article (i.e., solvent present in the fiber composition or applied to the surface of the fiber layers) does not patentably distinguish the final shaped article product structure over the prior art. The burden is shifted to Applicant to evidence the contrary. See MPEP 2113

With regard to the chi-parameter limitation of less than .5 present in claim 22, said limitation is presumed to be inherent to the ballistic-resistant moulded article of Van der loo et al., and Nanri et al. Support for said presumption if found in the use of like materials such as polyethylene and non-volatile paraffin, which would result in the claimed chi-parameter property. The burden is shifted to Applicant to evidence the contrary. *In re Fitzgerald* 205 USPQ 594

In addition, the presently claimed chi-parameter of less than .5 would have obviously been present once the ballistic-resistant moulded article of Van der loo et al., and Nanri et al., is provided. *In re Best*, 195 USPQ at 433

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

December 9, 2003

ls

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700